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Using LR-Type Membership Function For Estimating Fuzzy Linear Parameters For Electrical Load Estimation

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***Abstract*— a fuzzy linear estimation problem is formulated. The objective is to minimize the spread of the data points, taking into consideration the LR-type membership function of the fuzzy parameters to satisfy the constraints on each measurement point and to ensure that the original membership is included in the estimated membership. The proposed models are applied to different examples from the area of fuzzy linear regression and finally to different examples for estimating the electrical load on a busbar. It had been found that the proposed technique is more suited for electrical load estimation, since the nature of the load is characterized by the uncertainty and vagueness.**

***Keywords:* fuzzy regression, load estimation**